

REMARKS

This Amendment cancels claims 81 and 83. Furthermore, claim 80 has been amended to include the features of claims 81 and 83. Thus, no new matter has been added.

In an Advisory Action mailed September 28, 2003, the Examiner states that Applicants' reply has overcome the rejections of record as set forth in paragraphs 3, 5, 7, and 8 of the Office Action mailed April 29, 2003. However, the amendment was not successful in overcoming the rejections as set forth in paragraph 4 (rejection of claim 57 under 35 U.S.C. 102(b) as being anticipated by Hall et al., U.S. Patent No. 5,552,458) and paragraph 9 (rejection of claims 80-85 under 35 U.S.C. 103(a) as being unpatentable over Whitehouse et al., U.S. Patent No. 6,337,358, in view of Belmont et al., U.S. Patent No. 5,571,311) of the same Office Action.

Regarding claim 57, in the Advisory Action dated October 28, 2003, the Examiner states that Hall et al. discloses pigment having attached group of the formula $R^2\text{-Si-AX}$ where R^2 is a $C_1\text{-}C_{10}$ alkyl group and X is attached to the polymeric backbone, wherein the polymers include polyurethane and polyester. The Examiner concludes that, given that Hall et al. discloses pigments having directly attached an alkyl group R^2 , corresponding to presently claimed group X, which is substituted with polymer which is polyamide or polyester, identical to the polymers presently claimed, Hall et al. does meet the requirements of claim 57.

Applicants respectfully submit that the Examiner has misinterpreted the teaching of Hall et al. Specifically, Applicants believe that the alkyl group R^2 of Hall et al. is not directly attached to the pigment. Instead, the attachment is through the Si group. Support for this can be found in column 7, line 65 to column 8 line 16 of Hall et al., which states that the three groups, R^1 , R^2 , or R^3 cannot all be alkyl, which are resistant to hydrolysis. Rather, "it is necessary that at least one of the substituent groups attached to the silicon atom be alkoxy, alkoxyalkoxy, alkanoyloxy, or halogen". These groups are hydrolyzed to form hydroxyl groups which then react with groups present on the pigment surface. Therefore, the alkyl groups are not directly attached to the pigment. The group having the formula $R^2\text{-Si-AX}$ is attached through the silicon atom. Therefore, claim 57 has not been amended and reconsideration is respectfully requested.

Regarding claims 80-85, in the Advisory Action dated October 28, 2003, the Examiner states that Whitehouse et al. discloses ink jet ink comprising liquid vehicle, modified pigment having attached polymer, and binder. The Examiner concludes that it would have been obvious to one of ordinary skill in the art that the addition of additional polymer to an ink jet ink composition comprising modified pigment having attached polymer would result in a composition that would still function as an ink jet ink given that Whitehouse et al. discloses using such a combination of modified pigment having attached polymer with binder or additional polymer. The Examiner adds that Belmont et al., used as a teaching reference, discloses the use of binder identical to that presently claimed as polyester, styrene-acrylic acid copolymer polyester-melamine, etc. in an ink jet ink.

As herein amended, claim 80 relates to an ink composition comprising a) at least one liquid vehicle; b) at least one modified pigment product comprising a pigment having attached at least one aromatic or alkyl group X, wherein X is substituted with at least one group comprising the formula: -[polymer]R; and c) at least one additional polymer. Specific "polymer" groups are recited along with specific types of additional polymers.

Whitehouse et al. does not teach or suggest attached polymers of the type specified in amended claim 80. Rather, Whitehouse et al. teaches modified pigments having attached polymers prepared from free-radical polymerizable monomers of the type that would react with a stable free radical (SFR) group. Therefore, while Whitehouse et al. teaches the use of binders in combination with a modified pigment having attached polymer, these are not the modified pigments used in the ink composition of the present invention. Furthermore, if one were to combine Whitehouse et al. with the teaching reference Belmont et al., the result would be an ink composition comprising specific types of binders and a modified pigment having attached polymer that is different than recited in claim 80.

In view of the foregoing remarks, consideration of this amendment, prompt examination and allowance of this application is respectfully requested. If, in the opinion of the Examiner, a telephone conference would further expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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